

REMARKS

Claims 1 through 57 are pending in this application.

Pursuant to 37 C.F.R. §1.173(c), as to the status of the claims, claims 1 through 12 of the original U.S. patent remain pending in the application, with claims 8, 9, 11 and 12 being amended and claims 13 through 57 being newly added. As to the amendment of claims 8, 9, 11 and 12, these amendments are made to place these claims in better form, particularly to correct an error in claim 11 with respect to the positive input terminal of the second amplifier being connected to an output terminal of the first amplifier, and to clarify claim 12 to recite the tilt correcting pulse width modulated signal in accordance with the tilt correcting value, as well as other clarifying corrections, such as in claims 8, 9 and 11.

Also, as to the new claims 13 through 57, these claims are presented to obtain broader coverage of the invention supported by the above-issued patent as set forth in newly presented claims 13 through 57 in this reissue application. As support for these new method and apparatus claims 13 through 57, the specification sets forth methods and apparatus for controlling power consumption of a tilt correcting coil utilizing circuitry that provides a signal or withholds a signal in relation to a power supply mode, normal or reduced power consumption, an activity state, or horizontal and vertical synchronizing signals, in view of the disclosure of the original aforesaid patent at column 1, line 35-column 4, line 56, as well as in view of Figs. 1 and 2 of the original aforesaid patent. Also, in the added claims 13 through 57, claims have been added directed to a computer storage

medium including instructions for implementing a method of controlling power consumption in a tilt correcting coil, in view of the disclosure in the original aforesaid patent with respect to Fig. 2 and the microcomputer 20, such as at column 3, line 65-column 4, line 56 of the original aforesaid patent.

Entry of the amendments to claims 8, 9, 11 and 12 and entry of new claims 13 through 57, are therefore respectfully requested.

Also, the specification and the Abstract of the disclosure have been amended; entry of these amendments is also respectfully requested.

Also, submitted concurrently herewith is a Request for Approval of Drawing Changes requesting amendment to original Fig. 2 of the original aforesaid patent, as well as adding new Fig. 1A. Amendment to Fig. 2 corrects the wording in the various steps to place Fig. 2 in better form. Also, Fig. 1A has been added in view of the disclosure of column 3, lines 20-64 of the original aforesaid patent to clarify the circuitry as to tilt correcting signal circuitry with respect to the tilt correcting coil 50, such as illustrated in new Fig. 1A, the tilt correcting signal circuitry identified in new Fig. 1A by the numeral 60. Entry of the drawing corrections to Fig. 2 and entry of new Fig. 1A are respectfully requested.

Also, submitted concurrently herewith is an Information Disclosure Statement. Entry and consideration of this Information Disclosure Statement is are respectfully requested.

PATENT
P55057RE

In view of the foregoing Preliminary Amendment, this reissue application is believed to be in condition for examination. Should questions arise during the examination, the Examiner is requested to contact Applicant's attorney.

Respectfully submitted,

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MARKED-UP VERSION OF AMENDMENTS
IN THE SPECIFICATION

1. Please amend the first paragraph on column 3, from line 1 through line 6, as follows:

Therefore, according to the present invention, the tilt of the image of the screen is corrected in the normal manner in the on-state mode. On the other hand, in the cases of the standby mode, the suspend mode or the power-off mode, the tilt correcting coil does not consume any power, thereby satisfying the power consumption definition of the power-off mode.

2. Please amend the two consecutive paragraphs on column 3, from line 12 through line 17, as follows:

[FIG. 1 illustrates] FIG. 1 and 1A illustrate an embodiment of a circuit to which the method for controlling the power consumption according to the present invention is applied; and

FIG. 2 is a signal flow chart showing the operation of the microcomputer of [FIG. 1] FIGS. 1 and 1A, which is used for controlling the power consumption according to the present invention.

3. Please amend the paragraph on column 3, from line 20 through 34, as follows:

Referring to [FIG. 1] FIGS. 1 and 1A, [a circuit] circuitry 60 including tilt correcting signal circuitry for controlling the power consumption comprises: a microcomputer 20 for controlling the

DPMS operations of a monitor in accordance with the presence and absence of horizontal and vertical synchronizing signals input from a computer system, and for setting a tilt correcting value for the images of the screen in accordance with key signals of a keyboard or keyboard section 10 and outputting [a] tilt correcting pulse width modulated (PWM) signals; an integrator 30 for converting the tilt correcting PWM signals output from microcomputer 20 to dc voltages; and a tilt correcting signal outputting section 40 for amplifying the output voltages of integrator 30 to output tilt correcting signals[; and]. [a] A tilt correcting coil 50 [for correcting] corrects the tilt of the images of the screen in accordance with the output voltages of tilt correcting signal outputting section 40.

4. Please amend the first paragraph on column 4, from line 1 through line 7, as follows:

At a step S1, once the computer system is initially started or after a resetting operation, microcomputer 20 receives horizontal and vertical synchronizing or synchronization signals from the computer system in a normal on-state mode. At steps S2-S4, the microcomputer 20 determines whether horizontal and vertical synchronizing signals are being input from the computer system.

IN THE ABSTRACT

Please amend the Abstract, as follows:

A method for controlling the power consumption in a tilt correcting coil is disclosed. The power consumption is corrected in the tilt correcting coil for correcting the tilt of the images of the

cathode ray tube. If a microcomputer judges that the mode is the on-state mode, then the microcomputer outputs a tilt correcting PWM signal in accordance with the user's inputting. Then the output tilt correcting PWM signal is converted into a dc voltage, and the level is adjusted. Then the signal is supplied to the tilt correcting coil, so that the tilt of the image on the screen would be corrected. In the cases of the standby mode, the suspend mode and/or the power-off mode, the microcomputer outputs a signal which has a function of minimizing the power consumption of the tilt correcting coil. Therefore, the tilt of the image of the screen is corrected in the normal manner in the on-state mode. On the other hand, in the cases of the standby mode, the suspend mode and/or the power-off mode, the tilt correcting coil does not consume any power, thereby satisfying the power consumption definition of the power-off mode.

IN THE CLAIMS

Please amend claims 8, 9, 11 and 12, as follows, and add claims 13 through 57, as listed above:

1 8. (Amended) The apparatus as set forth in claim 6, said microcomputer outputting a signal
2 having a constant high logic level, when either one of said [of] horizontal and vertical synchronizing
3 signals are not output from said computer, for preventing said tilt correcting coil from consuming
4 power.

1 9. (Amended) The apparatus as set forth in claim 6, wherein said microcomputer

2 determines said monitor is to operate in said on-state mode when both of said [of] horizontal and
3 vertical synchronizing signals are output from said computer, and determines said monitor is to
4 operate in one of said suspend, standby and power-off modes when at least one of said [of]
5 horizontal and vertical synchronizing signals is not output from said computer;

6 said microcomputer outputting said tilt correcting pulse width modulated signal, when said
7 monitor is determined to be operating in said on-state mode; and

8 said microcomputer outputting a signal having a constant high logic level, when said monitor
9 is determined to be operating in one of said suspend, standby and power-off modes, for preventing
10 said tilt correcting coil from consuming power.

1 11. (Amended) The apparatus as set forth in claim 6, further comprising:

2 said integrator comprising:

3 a first resistor connected between a first node and said microcomputer, and a
4 capacitor connected between said first node and a ground terminal;

5 said tilt correcting signal output circuit comprising:

6 a first amplifier having a negative input terminal, a positive input terminal and an
7 output terminal;

8 a second resistor connected between said first node and said negative input terminal
9 of said first amplifier;

10 a dividing circuit connected between a power source and said ground terminal for
11 providing a divided voltage signal to said positive input terminal of said first amplifier;

12 a feedback resistor connected between said negative input terminal and said output
13 terminal of said first amplifier;

14 a second amplifier having a negative input terminal, a positive input terminal and an
15 output terminal, said [negative] positive input terminal of said second amplifier being
16 connected to said output terminal of said first amplifier;

17 said output terminal of said second amplifier being connected to a first terminal of
18 said tilt correcting coil;

19 a second capacitor connected between said first terminal of said tilt correcting coil
20 and a second terminal of said tilt correcting coil;

21 a grounding resistor connected between said second terminal of said tilt correcting
22 coil and said ground terminal; and

23 a second feedback resistor connected between said second terminal of said tilt
24 correcting coil and said negative input terminal of said second amplifier.

1 12. (Amended) The apparatus as set forth in claim 6, further comprising:

2 a keyboard connected to said microcomputer, said microcomputer setting a tilt correcting
3 value for images on a screen of said monitor in accordance with key signals output from said
4 keyboard and outputting said tilt correcting pulse width modulated [(PWM) signals] signal in
5 accordance [to] with said tilt correcting value.